available at ~~http://www.~~genome.wi.mit.edu/genome_software/other/primer3~~.html~~), STSPipeline (~~www-~~genome.wi.mit.edu/cgi-bin/~~www-~~STS_Pipeline), or GeneUp (Pesole *et al.*, *BioTechniques 25*:112-123 (1998)), for example, can be used to identify potential PCR primers. Exemplary primers include primers that are 18 to 50 bases long, where at least between 18 to 25 bases are identical or complementary to a segment of corresponding length in the template sequence. Preferred template sequences for such primers are selected from MYXO sequences provided herein as SEQ ID NO: 1850 through SEQ ID NO: 9691 or complements thereof, particularly those sequences which encode peptides whose sequences are provided herein as SEQ ID NO: 9692 through SEQ ID NO: 16825.

This invention also contemplates and provides primer pairs for amplification of nucleic acid molecules representing *Myxococcus* genes. As used herein "primer pair" means a set of two oligonucleotide primers based on two separated sequence segments of a target nucleic acid sequence. One primer of the pair is a "forward primer" or "5' primer" having a sequence which is identical to the more 5' of the separated sequence segments. The other primer of the pair is a "reverse primer" or "3' primer" having a sequence which is complementary to the more 3' of the separated sequence segments. A primer pair allows for amplification of the nucleic acid sequence between and including the separated sequence segments. Optionally, each primer pair can comprise additional sequences, *e.g.* universal primer sequences or restriction endonuclease sites, at the 5' end of each primer, *e.g.* to facilitate cloning, DNA sequencing, or reamplification of the target nucleic acid sequence.

Nucleic acid molecules or fragments thereof are capable of specifically hybridizing to other nucleic acid molecules under certain circumstances. As used herein, two nucleic acid molecules are said to be capable of specifically hybridizing to one another if the two molecules are capable of forming an anti-parallel, double-stranded nucleic acid structure along a sufficient portion of the molecule to allow for stable binding under laboratory hybridizing conditions. A nucleic acid molecule is said to be the "complement" of another nucleic acid molecule if they exhibit complete complementarity. As used herein, molecules are said to exhibit "complete complementarity" when every nucleotide of one of the molecules is complementary to a nucleotide of the other. Two molecules are said to be "minimally complementary" if they can hybridize to one another with sufficient stability to permit them to remain annealed to one